Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK



Locations covered by the organisation and their relevant activities

Laboratory locations:

Location details		Activity	Location code
Address Bretton Laboratory Lester Lane Chester CH4 0DA	Local contact Paul Woodbridge Tel: +44 (0)1633 373007 Fax: +44 (0)1633 810398 Email: paul.woodbridge@dwrcymru.com	<u>Testing:</u> Microbiological	В
Address Glaslyn Laboratory Glaslyn Cleppa Park Newport NP10 8UG	Local contact Paul Woodbridge Tel: +44 (0)1633 373007 Fax: +44 (0)1633 810398 Email: paul.woodbridge@dwrcymru.com	<u>Testing:</u> Microbiological Chemical	G

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7742 Accredited to ISO/IEC 17025:2017	Issue No: 045 Issue date: 06 February 2025

Sampling depots:

Location details		Activity	Location code
North			
Dinas Depot Llannwnda Caernarfon LL54 5UD	Local contact Sean Dunne Tel: +44 (0)1633 373033	Sampling Sampling of water and wastewater for subsequent chemical and microbiological testing <u>Testing</u> Physical and Chemical	SAMP
North			
Kinmel Park Royal Welch Avenue Bodelwyddan LL18 5TQ	Local contact Sean Dunne Tel: +44 (0)1633 373033	Sampling Sampling of water and wastewater for subsequent chemical and microbiological testing <u>Testing</u> Physical and Chemical	SAMP
South			
Glaslyn Cleppa Park Newport NP10 9UG	Local contact Sean Dunne Tel: +44 (0)1633 373033	Sampling Sampling of water and wastewater for subsequent chemical and microbiological testing <u>Testing</u> Physical and Chemical	SAMP
West			
Players Ind Estate Clydach Road Clydach SA6 5BQ Ty Twi Unit 2 Parc Pensam Carmarthen SA31 2NF	Local contact Sean Dunne Tel: +44 (0)1633 373033	Sampling Sampling of water and wastewater for subsequent chemical and microbiological testing <u>Testing</u> Physical and Chemical	SAMP

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	Testing performed by the Organisation at the locations specified

measured/Range of measurement	Equipment/Techniques used	Code
<u>Testing for the purpose of</u> <u>enforcement of the Water Supply</u> <u>(Water Quality) Regulations 2018</u> <u>(Wales) The Private Water</u> <u>Supplies (Wales) Regulations 2017</u> <u>& Private Water Supplies (England)</u> <u>2016 (As amended)</u>	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials	
<u>The testing is in accordance with</u> <u>the Drinking Water Testing</u> <u>Specification (DWTS)</u>		
Microbiological Testing		
Enumeration of:		
Coliforms, presumptive and confirmed and <i>Escherichia coli</i> confirmed	LPM001 and LPM002 based on "The Microbiology of Drinking Water" Part 4 (2016) using membrane filtration (MLGA) (standard and large volume analysis)	B, G
<i>Clostridium perfringens,</i> presumptive and confirmed	LPM001 and LPM004 based on "The Microbiology of Drinking Water" Part 6 (2015) using membrane filtration (standard and large volume analysis), confirmation using acid phosphatase	B, G
Enterococci, presumptive and confirmed	LPM001 and LPM003 based on "The Microbiology of Drinking Water" Part 5 (2012) using membrane filtration (standard and large volume analysis)	B, G
Heterotrophic plate counts at 22°C and 37°C	LPM005 based on "The Microbiology of Drinking Water" Part 7 (2020) using pour plate (YEA)	B, G
	enforcement of the Water Supply (Water Quality) Regulations 2018 (Wales) The Private Water Supplies (Wales) Regulations 2017 & Private Water Supplies (England) 2016 (As amended) The testing is in accordance with the Drinking Water Testing Specification (DWTS) Microbiological Testing Enumeration of: Coliforms, presumptive and confirmed and <i>Escherichia coli</i> confirmed <i>Clostridium perfringens</i> , presumptive and confirmed Enterococci, presumptive and confirmed Heterotrophic plate counts at 22°C	enforcement of the Water Supply (Water Quality) Regulations 2018 (Wates) The Private Water Supplies (Wales) Regulations 2017 & Private Water Supplies (England) 2016 (As amended)based on Standing Committee of Analysts Methods for the Examination of Waters and Associated MaterialsThe testing is in accordance with the Drinking Water Testing Specification (DWTS)based on Standing Committee of Analysts Methods for the Examination of Waters and Associated MaterialsMicrobiological Testing Enumeration of: Coliforms, presumptive and confirmedLPM001 and LPM002 based on "The Microbiology of Drinking Water" Part 4 (2016) using membrane filtration (MLGA) (standard and large volume analysis)Clostridium perfringens, presumptive and confirmedLPM001 and LPM004 based on "The Microbiology of Drinking Water" Part 6 (2015) using membrane filtration (standard and large volume analysis), confirmation using acid phosphataseEnterococci, presumptive and confirmedLPM001 and LPM003 based on "The Microbiology of Drinking Water" Part 5 (2012) using membrane filtration (standard and large volume analysis)Heterotrophic plate counts at 22°C and 37°CLPM005 based on "The Microbiology of Drinking Water" Part 7 (2020) using pour plate

DETAIL OF ACCREDITATION

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	Testing performed by the Organisation at t	he locations specified		
Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used	Location Code	
WATERS (cont'd): Potable, Raw (Surface and Ground) Waters (cont'd)	Testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2018 (Wales) The Private Water Supplies (Wales) Regulations 2017 & Private Water Supplies (England) 2016 (As amended)	Documented In-House Methods based on Standing Committee of Analysts Methods for the Examination of Waters and Associated Materials		
	<u>The testing is in accordance with</u> <u>the Drinking Water Testing</u> <u>Specification (DWTS) (</u> cont'd)			
	Microbiological Testing (cont'd)			
	Isolation and enumeration of <i>Cryptosporidium</i> oocycts	LPM071 based on "The Microbiology of Drinking Water" Part 14 (2010) using filtration, elution and aspiration. Filta max, IMS, confirmation by microscopy	G	
Treated surface water, treated ground water, raw surface water and raw ground water	Flow Cytometry Bacterial Viability and Counting (Total cell counts,Intact cell counts, Dead Cell Counts)	LPM077 in house method using Attune NxT Flow Cytometer	G	
	Confirmation and species Identification:			
Indicator bacteria isolated from Potable, Raw (Surface and Ground) Waters using LPM methods	Coliforms Enterococci <i>Escherichia coli</i> <i>Clostridium perfringens</i>	In-house method LPM075, using MALDI-TOF (Matrix Assisted Laser Desorption Ionisation – Time of Flight)	B, G	
	Enumeration of:			
	Identification and enumeration of Algae	LPM057 in house method using inverted light microscopy and light chambers	G	
	Detection of:			
Swab samples (gel medium transport and cotton swabs)	Coliforms, confirmed <i>Escherichia coli</i> , confirmed	LPM030 – in house method using elution into MRD followed by filtration onto selective media. Confirmation using procedures in LPM 002 and LPM003 as relevant	B, G	

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	<u>The testing is in accordance with</u> <u>the Drinking Water Testing</u> <u>Specification (DWTS)</u> (cont'd) <u>Chemical Testing</u>		
	Absorbance at 254nm Transmission at 254nm	In-house method LPM 064 by spectrometry	G
	рН	In-house method LPM 032 using manual pH meter	G
	Turbidity	In-house method LPM 033 using manual turbidity meter	G
	Electrical Conductivity	In-house method LPM 034 using manual conductivity meter	G
	pH Conductivity Turbidity	In-house method LPM 043 using automated Skalar	G
	Colour	In-house method LPM 063 using spectrophotometry	G
	Chlorophyll A	In-house method LPM 044 using manual spectrophotometry	G

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	Nutrients: Alkalinity Ammonia Chloride Fluoride Nitrite Phosphate Silica as SiO ₂ Sulphate Total Oxidised Nitrogen Nitrate (by calculation) Nitrate/nitrite ratio (by calculation)	In-house method LPM 036 Using discrete photometric analyser	G
	Bromate Bromide Chlorate Chlorite	In-house method LPM 048 using Dionex IC	G

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	Metals: Aluminium Antimony Arsenic Boron Cadmium Calcium Chromium Copper Iron Lead Magnesium Manganese Mercury Nickel Phosphorus Potassium Selenium Sodium` Uranium Zinc	In-house method LPM 038 using ICP-MS	G
	Total Organic Carbon Dissolved Organic Carbon	In-house method LPM 081 using combustion and infra-red detection	G

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	Suspended solids	In-house method LPM 045 using filtration, followed by weight difference to derive concentration	G
	Volatile Organic Compounds: Benzene Bromodichloromethane Bromoform Carbon Tetrachloride Chlorodibromomethane Chloroform 1,2-Dichloroethane Tetrachloroethene Trichloroethene 1,1,1-Trichloroethene Total Tetrachloroethene & Trichloroethene (by calculation) Total THM (by calculation)	In-house method LPM 042 using headspace GC-MS	G
	Polycyclic Aromatic Hydrocarbons (PAHs): Fluoranthene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Benzo(g,h,i)perylene Total PAH (by calculation)	In-house method LPM 047 using solid phase extraction and HPLC with fluorescence detection	G

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	<u>The testing is in accordance with</u> <u>the Drinking Water Testing</u> <u>Specification (DWTS) (</u> cont'd) <u>Chemical Testing</u> (cont'd)		
	Glyphosate	In-house method LPM 053 using derivatisation, solid phase extraction and LC-MS-MS	G
	Acid Herbicides: 2,4,5-T 2,4-D 2,4-DB Asulam Benazolin Bentazone Bromoxynil Clopyralid Dicamba Dichlorprop Fluroxypyr Fluxapyroxad Ioxynil MCPA MCPB Mecoprop Metaldehyde Pentachlorophenol Quinmerac Triclopyr	In-house method LPM 049 using direct aqueous analysis by LC-MS-MS	G

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	Non-polar Pesticides: 1,2,4-Trichlorobenzene Aldrin Azinphos-methyl Chlorpyrifos-ethyl Chlorothalonil Cis-Heptachlor Epoxide Cypermethrin Dieldrin Heptachlor Parathion-ethyl Trans-Heptachlor Epoxide Total heptachlorepoxide (by Calculation) Total permethrin (by calculation)	In-house method LPM 050 using liquid-liquid extraction and GC-MS-MS	G

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	Flufenacet Flurtamone Linuron Metamitron Metazachlor Metconazole Metsulfuron-methyl Picolinafen Pirimiphos Methyl Prochloraz Propazine Propyzamide Simazine Tebuconazole Taste and Odour causing contaminants:	In-house method LPM 046 using GCMSMS	G			
	2-Methyl isoborneol Geosmin GCMS qualitative screen for	In-house method LPM 054	G			
	unknown organic compounds (Non DWTS)	using GC-MS (Non DWTS)	Ŭ			

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	<u>The testing is in accordance with</u> <u>the Drinking Water Testing</u> <u>Specification (DWTS) (</u> cont'd) <u>Chemical Testing</u> (cont'd)				
Potable Water	Taste and Odour (Qualitative and Quantitative)	In-house method LPM 041 based on SCA Blue Book Method 233 (2014) using testing panel	G		
Surface Water, Ground Water	Odour (Qualitative and Quantitative)	In-house method LPM 041 Based on SCA Blue Book Method 233 (2014) using testing panel	G		
Potable, Raw (Surface and Ground) Waters	Taste and Odour (Qualitative)	In-house methods LPM 056 based on SCA Blue Book Methods 233 Method A1 (2014) using laboratory based single panellist	G		

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POTABLE AND RAW WATER (Surface and Ground) sampled from:	Sampling for Chemical and Microbiological Testing of Water	In house procedures as documented in the company sampling procedures manual				
Water Treatment Works Service Reservoirs (tap sample) Consumer taps Service Reservoirs and Contact Tanks (dip sample) Hydrants Consumer Boundary Box (via standpipe) Water Bowser	Sampling for eventual testing for the purpose of enforcement of the Water Supply (Water Quality) Regulations 2018 (Wales) as amended the sampling and appropriate testing is in accordance with the Drinking Water Testing Specification (DWTS) and includes sampling for Cryptosporidium	Water sampling documents prefixed: LSC - Core Skills LSP- Procedures LSF - Forms	SAMP			
Sample Taps	Swab sampling					
	Chemical Tests at Site					
	Free Residual Chlorine Total Chlorine	By Colorimetry, in-house Procedure LPM031	SAMP			
WASTE WATER Sampled from:	Sampling Waste Water	In house procedures as documented in the company sampling procedures manual				
Treated Sewage Effluent from Waste Water Treatment Works Trade effluent to controlled water from Water Treatment Works	Spot Sampling to meet the requirements of the Environment Agency MCERTS (Water) Performance Standard, and the subsequent chemical testing at a laboratory accredited to ISO 17025:2017 and the MCERTS for testing	Waste water sampling documents prefixed: WSC - Core Skills WSP- Procedures WSF - Forms	SAMP			
	Physical Tests at Site					
	On-site measurement of temperature.					
	Chemical Tests at Site					
Water Treatment Works Effluent Only	Free Residual Chlorine Total Chlorine	By Colorimetry, in house Procedure LPM079				
END						